

TOURNAMENT REFERENCE DEVICE AND METHOD THEREFORFIELD OF THE INVENTION

This invention relates generally to athletic tournaments,
5 and more particularly, to a reference device and method for
conducting a wrestling tournament.

DESCRIPTION OF THE RELATED ART

Conducting an athletic competition requires keeping track
10 of various conditions of the competition, such as which matches
of the competition are currently underway and which matches will
be performed next. Additionally, some types of competitions and
particular sports require keeping track of conditions that vary
from match to match in a prescribed way. In particular,
15 wrestling dual meet competitions or dual meet tournaments under
current National Collegiate Athletic Association (NCAA) and
National Federation of State High School Association (NFHS)
rules requires keeping track of which team is given choice of
starting position in the second period of a match. Choice of
20 starting position must alternate between competitors of the two
teams in a dual meet as the matches are performed in sequence
according to weight category. Keeping track of this condition
is complicated by defaults or disqualifications that interrupt
the ordinary sequence of matches in the competition.

25 Additional complications arise because both NCAA and NFHS
rules allow a competition to begin with any of the weight
categories. Although the NCAA rules allow the coaches to
determine the starting weight category by agreement, NFHS rules
require the starting weight to be selected randomly. Also, the
30 determination of choice is made by the team corresponding to a
flip of a red and green disk, choosing to have choice for either
the odd-numbered (first, third, etc.) or even-numbered (second,

fourth, etc.) matches. These factors make it impossible for a competition organizer to prepare in advance a chart of matches showing order of weight categories and the corresponding choice.

Finally, a scorekeeper that is able to accurately keep
5 track of which team has choice throughout the competition, must still effectively communicate this information from the scorekeeper's table to the referee on the mat, often a significant distance away. Verbal communication during a meet is often impossible because of participant and audience noise,
10 while the limited budgets of especially high school programs makes electronic communication impractical.

A need therefore exists to provide an inexpensive and durable device for keeping track of a competition condition such as choice of starting position even when the initial conditions
15 of the competition are not determined until immediately prior to the competition. A further need exists for an inexpensive and durable device designed to facilitate visual communication to a referee of the competition condition for each match. A need also exists for an inexpensive and durable device that can
20 randomly determine a starting weight category of a competition. The present invention satisfies these needs, and provides other, related, advantages.

SUMMARY OF THE INVENTION

The foregoing objectives are achieved in the tournament
5 reference device and method therefor.

In accordance with one embodiment of the present invention,
a reference device for conducting a multi-component competition
is disclosed. It comprises, in combination: a set of first
indicia corresponding to components of a competition; a set of
10 second indicia corresponding to a status of a competition
condition; and a display surface comprising a plurality of
divisions, at least two of the plurality of divisions having the
first indicia, at least one of the plurality of divisions having
the second indicia.

15 In accordance with another embodiment of the present
invention, a method of conducting a wrestling competition is
disclosed. It comprises the steps of: providing a reference
device, comprising, in combination: a set of first indicia
corresponding to components of a competition, the components are
20 weight categories, the set of first indicia comprises numbers
corresponding to the weight categories; a set of second indicia
corresponding to a choice of wrestling position, the set of
second indicia comprises a first pattern and a second pattern;
and a display surface comprising a plurality of divisions, at
25 least two of the plurality of divisions having the first
indicia, at least one of the plurality of divisions having the
second indicia, each of the plurality of divisions is adjacent
to no more than two other divisions, the first indicia of
adjacent divisions correspond to sequential weight categories;
30 selecting one division of the plurality of divisions of the
reference device; reading a value of one of the first indicia

and the second indicia of the selected division; and conducting the competition as a result of the reading.

In accordance with another embodiment of the present invention, a method of initiating a competition is disclosed.

5 It comprises the steps of: providing a reference device comprising, in combination: a set of indicia corresponding to weight categories of a competition; and a display surface comprising a plurality of divisions, at least two of the plurality of divisions having the indicia, the display surface
10 comprises an exterior surface of a generally right polygonal prism having a plurality of lateral faces, each face of the plurality of lateral faces comprising a single division of the plurality of divisions, rolling the reference device on a surface with lateral portions of the reference device making
15 contact with the surface; selecting a resting face of the plurality of lateral faces, the resting face contacting the rolling surface when the rolling ends; and reading a value of the indicia of the resting face to determine a starting weight category for the competition.

20 The foregoing and other objects, features, and advantages of the invention will be apparent from the following, more particular, description of the preferred embodiment of the invention, as illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is an illustration depicting a perspective view of a reference device having a generally right polygonal structure in accordance with a preferred embodiment of the present invention.

Figure 2 is an illustration depicting a top view of a reference device showing a plurality of divisions and indicia in accordance with a preferred embodiment of the present invention.

10 **Figure 3** is an illustration depicting a top view of the reference device of **Figure 1**.

Figure 4 is an illustration depicting a bottom view of the reference device of **Figure 1**.

15 **Figure 5** is an illustration depicting a top view of a reference device on a wristband in accordance with a preferred embodiment of the present invention.

Figure 6 is an illustration depicting a perspective view of the reference device of **Figure 5** on a wearer's wrist in accordance with a preferred embodiment of the present invention.

DESCRIPTION OF EMBODIMENTS OF THE INVENTION

With reference now to the figures, and in particular to **Figure 2**, a reference device 10 for conducting a multi-component competition is depicted in accordance with a preferred embodiment of the present invention. The reference device 10 comprises, in combination: a set of first indicia 12 corresponding to components of a competition; a set of second indicia 14 corresponding to a status of a competition condition; and a display surface 16 comprising a plurality of divisions 18. Preferably, at least two of the plurality of divisions 18 have the first indicia 12, and at least one of the plurality of divisions 18 has the second indicia 14. The terms "competition" and "tournament" should be clearly understood to be interchangeable and to apply to any match, tournament, meet, or other contest between competitors or teams of competitors, athletic or otherwise.

As depicted in **Figure 2**, the components of the multi-component competition are preferably weight categories, and the set of first indicia 12 preferably comprises numbers corresponding to the weight categories. Each division 18 preferably has the first indicia 12 repeated in an inverted orientation to facilitate reading the first indicia 12 when a reader views the reference device 10 upside down. Although in the preferred embodiment of the present invention the components are weight categories, it should be understood that significant benefit may be obtained by having the components correspond to other components, such as: skill levels, height, or gender categories, or a combination of such categories, for example. Although, in the preferred embodiment of the present invention, numbers are used to designate individual components, it should be understood that significant benefit may be obtained by using

other indicia such as letters or symbols to designate tournament components. In addition, although preferably each division 18 has two of the first indicia 12 in reversed orientations to facilitate reading from various directions, it should be understood that substantial benefit may be obtained by using a different number of the first indicia 12 in each division 18, such as each division 18 having a single first indicia 12, or some divisions 18 having the first indicia 12 and other divisions 18 not having the first indicia 12, such as for an "open" or wild-card component, or when the presence of the first indicia 12 for each division 18 is not determined necessary for conducting the tournament, for example, such as when the order of components is well-known.

Preferably, the status of the competition condition corresponds to a choice of wrestling position and the set of second indicia 14 comprises a first pattern 20 and a second pattern 22. Although in the preferred embodiment the status of the competition condition corresponds to a choice of wrestling position, it is within the spirit and scope of the present invention that the status of the competition condition not correspond to choice of wrestling position, so long as the tournament may be effectively conducted using the reference device 10. For example, the status of the competition condition may correspond to color of pieces between participants in a chess tournament, or the lane of a competitor in a track meet. Additionally, it should be understood that significant benefit may be obtained by having the second indicia 14 not comprise a first pattern 20 and a second pattern 22 as long as the second indicia 14 designates a status of a competition condition, for example, with letters or symbols.

Preferably, the first pattern 20 comprises a first color 24, and the second pattern 22 comprises a second color 26.

Because both NCAA and NFHS rules designate teams in a dual meet as red and green, preferably the first color 24 is red, and the second color 26 is preferably green. However, it should be well understood by one of ordinary skill that significant benefit may be obtained by having either or both of the first pattern 20 not comprise a first color 24 and the second pattern 22 not comprise a second color 26, as long as the first pattern 20 is distinguishable from the second pattern 22, for example, the first pattern 20 and the second pattern 22 may be black and white, or tactile patterns such as Braille.

Although **Figure 2** depicts two of the second indicia 14 in a single division 18 and other divisions 18 not having the second indicia 14, it should be clearly understood that significant benefit may be obtained by having different arrangements of the second indicia 14 in the divisions 18, as long as the arrangements are conducive to conducting a competition. For example, a martial arts competition may use the second indicia 14 in a division 18 to designate a choice of weapons to be used by competitors in a match, while divisions 18 corresponding to matches that do not use weapons may not have the second indicia 14.

Preferably, each of the plurality of divisions 18 is adjacent to no more than two other divisions 18 and the first indicia 12 of adjacent divisions 18 correspond to sequential weight categories. This preferred arrangement of divisions 18 on the display surface 16 is conducive to reading sequential values of the first indicia 12 by constraining each division 18 to having only a prior first indicia 12 and a subsequent first indicia 12 on adjacent divisions 18.

Referring now to **Figures 1, 3 and 4**, a preferred embodiment of the present invention 10 is depicted. **Figure 1** shows a reference device where the display surface 16 preferably

comprises an exterior surface of a generally right polygonal prism 30 having a first base or side 32 (shown in Figures 1 and 3), a second base or side 34 (shown in Figure 4), and a plurality of lateral faces 36. Although preferably the display surface comprises an outer surface of a right polygonal prism 30, it is within the spirit and scope of the present invention that the display surface 16 instead comprise a surface of another geometric shape such as a cylinder or pyramid, so long as the shape is conducive to conducting the competition.

Preferably, each face 36 of the plurality of lateral faces 36 comprises a single division 18 of the plurality of divisions 18, and each division 18 has one of the first pattern 20 and the second pattern 22 being proximate the first base 32 and the other of the first pattern 20 and the second pattern 22 being proximate the second base 34. Preferably, the location of the first pattern 20 and the second pattern 22 alternate on sequential divisions 18, as shown in **Figure 1**. However, it should be clearly understood that significant benefit may be obtained by having the faces 36 of the plurality of lateral faces 36 comprise more than a single division 18 or no divisions, so long as the distribution of divisions 18 on the faces 36 is conducive to conducting the competition. For example, if the prism 30 has more faces 36 than competition components, several faces 36 may not have divisions 18.

Preferably, the first base 32 has the first pattern 20 and the second base 34 has the second pattern 22. As depicted in **Figures 3 and 4**, a center portion of each base 32 and 34 has one of the first pattern 20 and the second pattern 22. This allows the status of the tournament condition to be visually transmitted by displaying one of the bases 32 and 34. For example, a scorekeeper at wrestling competition can communicate

which competitor has choice of wrestling position by display one of the first base 32 and the second base 34 to a mat referee.

Another preferred embodiment of the present invention is depicted in **Figures 5** and **6**. In the present embodiment, the reference device 10 further comprises a wristband 40 having an inside surface, an outside surface, a first edge 46, and a second edge 48. The display surface 16 is positioned on the wristband 40 so that at least one of the plurality of divisions 18 is visible to a wearer of the wristband 40. Although **Figures 5** and **6** shows the wristband 40 having a fastening mechanism 42 of a hook and loop material for fastening the wristband 40 around a wrist, it is within the spirit and scope of the present invention that a hook and loop material not be used, and instead another fastening mechanism 42, such as adhesives, magnetism, or buttons, for example, is used. Additionally, it is within the spirit and scope of the present invention that the wristband 40 not have a fastening mechanism 42, as long as the wristband 40 can be worn on a wrist, such as when the wristband 40 is made from an elastic loop.

Preferably, the reference device 10 further comprises an indicator 44 for indicating at least one of the plurality of divisions 18. As shown in **Figure 5**, the indicator 44 preferably is a generally transparent loop having a marking and dimensioned to fit around the wristband 40 so that a wearer can slide the indicator to a desired location. However, it is within the spirit and scope of the present invention that the reference device 10 not comprise an indicator 44, so long as a wearer can conduct a competition using the reference device 10. For example, a mat referee may use the reference device 10 by orienting the device 10 on his wrist in a preferred way, or by simply remembering which component of the competition is currently underway. Additionally, one of ordinary skill should

clearly understand that substantial benefit may be obtained by indicator 44 not being a generally transparent loop having a marking, so long as the indicator 44 can indicate a preferred division 18 of the display surface 16, such as, for example, a clip that fastens to an edge 46 or 48 of the wristband 40 or a removable marking that attaches to the surface of the wristband 40.

Preferably, each of the plurality of divisions 18 has one of the first pattern 20 and the second pattern 22 being proximate the first edge 46 of the wristband 40 and the other of the first pattern 20 and the second pattern 22 being proximate the second edge 48 of the wristband 40. Preferably, the reference device 10 further comprises a legend 50 positioned on the outer surface of the wristband 40 for distinguishing the first edge 46 of the wristband 40 from the second edge 48 of the wristband 40, as shown in **Figures 5 and 6**. The legend 50 preferably designates which team selected even or odd matches for choice of wrestling positions, so that the pattern 20 or 22 closest to an edge 46 or 48 designated by legend 50 may indicate which team has choice for each division 18.

Statement of Operation

In accordance with an embodiment of the present invention, a method of conducting a wrestling competition is presented, comprising the steps of providing a reference device 10, comprising, in combination: a set of first indicia 12 corresponding to components of a competition, the components are weight categories, the set of first indicia 12 comprises numbers corresponding to the weight categories; a set of second indicia 14 corresponding to a choice of wrestling position, the set of second indicia 14 comprises a first pattern 20 and a second pattern 22; and a display surface 16 comprising a plurality of

divisions 18, at least two of the plurality of divisions 18 having the first indicia 12, at least one of the plurality of divisions 18 having the second indicia 14, each of the plurality of divisions 18 is adjacent to no more than two other divisions 18, the first indicia 12 of adjacent divisions 18 correspond to sequential weight categories. The method further comprises the steps of selecting one division 18 of the plurality of divisions 18 of the reference device 10; reading a value of one of the first indicia 12 and the second indicia 14 of the selected division 18; and conducting the competition as a result of the reading.

In accordance with an embodiment of the present invention, preferably the reading is performed on the first indicia 12 of the selected division 18 for determining a weight category, and the conducting comprises beginning a match between competitors of the determined weight category.

In accordance with another embodiment of the present invention, preferably the reading is performed on the second indicia 14 of the selected division 18 for determining choice of wrestling position, and the conducting comprises giving a competitor choice of wrestling position.

Preferably, the reference device 10 further comprises a first side or base 32 having the first pattern 20 and a second side or base 34 having said second pattern 22, and the reading value is visually communicated by displaying one of the first side 32 and the second side 34.

In accordance with another embodiment of the present invention, preferably the display surface 16 of the reference device 10 comprises an exterior surface of a generally right polygonal prism having a first base 32, a second base 34, and a plurality of lateral faces 36, each face 36 of the plurality of lateral faces 36 comprising a single division 18 of the

plurality of divisions 18, each division 16 having one of the first pattern 20 and the second pattern 22 being proximate the first base 32 and the other of the first pattern and the second pattern being proximate the second base 34. The method of the present embodiment further comprises the steps of determining an initial weight category, determining an initial one of the first pattern 20 and the second pattern 22, locating one division 18 of the plurality of divisions 18 having the first indicia 12 corresponding to the initial weight category, and orienting the reference device 10 so that the lateral faces 36 are generally vertical and the initial one of the first pattern 20 and the second pattern 22 is positioned at the top of the located division 18. For example, if the initial weight category is 189-214 lbs. and the red team has chosen odd matches, a scorekeeper may rotate the reference device 10 until a division having "189" is facing the scorekeeper, and then place the reference device 10 on a table sitting on one of the two bases 32 and 34 so that the red pattern is above the green pattern on the division facing the scorekeeper.

Preferably, the competition has a preferred sequence of weight categories and further has a sequence of matches, and the selecting comprises the steps of locating a current division 18 having a first indicia 12 in conformity with a weight category of a current match of the tournament and selecting a division 18 adjacent to the current division 18 having a first indicia 12 corresponding to the next weight category of the preferred sequence of weight categories. Preferably, the reading is performed on the top second indicia 14 of the selected division 18 for determining choice of wrestling position, and the conducting comprises the steps of starting a match corresponding to the next weight category, and giving a competitor choice of wrestling position in conformity with the reading.

For example, if a match is currently underway between competitors in the "189" weight category, a scorekeeper or referee could locate a division 18 having "189" as a first indicia 12, then select an adjacent division 18 having the next
5 in the sequence of weight categories, such as "215" under NFHS rules. The scorekeeper or referee preferably would read the top pattern of the selected division to see if the red or green competitor in the "215" category will have choice. The scorekeeper or referee may then begin the next match of the
10 contest between competitors of the "215" weight category, with the proper competitor having choice.

In accordance with an alternate embodiment of the present invention, a method of initiating a competition comprises the step of providing a reference device comprising, in combination,
15 a set of indicia 12 corresponding to weight categories of a competition and a display surface 16 comprising a plurality of divisions 18. Preferably, at least two of the plurality of divisions 18 have the indicia 12, the display surface 16 comprises an exterior surface of a generally right polygonal
20 prism having a plurality of lateral faces 36, and each face 36 of the plurality of lateral faces 36 comprises a single division 18 of the plurality of divisions 18. The method of initiating a competition preferably further comprises the steps of rolling the reference device 10 on a surface with lateral portions of
25 the reference device 10 making contact with the surface, selecting a resting face 36 of the plurality of lateral faces 36, the resting face 36 contacting the surface when the rolling ends, and reading a value of the indicia 12 of the resting face 36 to determine a starting weight category for the competition.

30 Preferably, each lateral face 36 is congruent with the other faces 36 so that the rolling may result in a random selection of an initial weight category. The reference device

10 may also comprise at least one side 32 or 34 having the indicia 12 located near the lateral edges corresponding to the indicia 12 of the divisions 18 adjoining the edges as shown in **Figure 3**. This embodiment of the present invention would
5 provide the benefit of allowing a observer to read the indicia 12 corresponding to the resting face 36 without removing the reference device 10 from its resting position.

While the invention has been particularly shown and described with reference to the preferred embodiments thereof,
10 it will be understood by those skilled in the art that the foregoing and other changes in form, and details may be made therein without departing from the spirit and scope of the invention. For example, the divisions of the reference device may be arranged in substantially circular pattern as in a pie
15 chart instead of the rectangular arrangement of **Figure 2**, or the wristband of the present invention may be reversible, having separate indicia on the two sides.